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10/681,495	10/07/2003	Robert E. Hornung	IND-125	5901

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EXAMINER

ROSSI, JESSICA

ART UNIT PAPER NUMBER

1733

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/681,495

Applicant(s)

HORNUNG ET AL.

Examiner

Jessica L. Rossi

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 14-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/2/04, 5/24/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-13, drawn to a method for fabricating an integrated sash insulating glass unit, classified in class 156, subclass 285.
 - II. Claims 14-25, drawn to a method for fabricating an integrated sash insulating glass unit, classified in class 156, subclass 109.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are distinct method combinations. Each group relies on different elements for patentability not required by the other. Group I requires an evacuation opening communicating with the insulating space between the panes and drawing a vacuum from the opening to draw the panes closer together **after the panes have been mounted** on their respective mounting surfaces and **applying** the panes **to** their respective **mounting surfaces** using at least one roller (see claim 8) whereas Group II does not. Group II requires **mounting** the panes to their respective mounting surfaces, pressing the surfaces of the panes **adjacent** their **mounting surfaces** using at least one roller and providing an evacuation opening communicating with the insulating space between the panes to allow the escape of air **as the panes are mounted** to their respective mounting surfaces (see claim 23) whereas Group I does not. Also refer to section [0013] on p. 5 of the specification.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Mr. Lipsitz on 10/25/04 a provisional election was made with traverse to prosecute the invention of Group II, claims 14-25. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-13 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 14 and 20 are rejected under 35 U.S.C. 102(a) as being anticipated by Glover et al. (US 6401428; provided in IDS).

With respect to claim 14, Glover teaches a method for making an integrated sash insulating glazing unit (column 1, lines 8-9). The reference teaches providing a sash frame 40/128 having a first mounting surface 51 for a first pane 33 and a second mounting surface 52 for a second pane 34 substantially parallel to the first pane wherein the mounting surfaces are spaced apart to provide an insulating space between the panes (Figures 2 and 15; column 5, lines 45-48;

column 10, lines 60-65). The reference teaches mounting the panes to their respective mounting surfaces via an adhesive sealant 44 (column 5, lines 45-48) and pressing the surfaces of the panes adjacent their mounting surfaces into the adhesive sealant using at least one roller (column 6, lines 50-56).

Regarding claim 20, Glover teaches such (column 6, lines 50-56).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glover et al. as applied to claim 20 above and further in view of LaFond (US 6332948).

Regarding claim 21, Glover is silent as to the multiple rollers simultaneously pressing the panes. It is known in the art to make a laminated insulating glazing unit by adhesively bonding first and second panes to their respective mounting surfaces using a roll press comprising a plurality of rollers that simultaneously press the panes toward their mounting surfaces, as taught by LaFond (Figure 2; column 1, lines 6-9; column 5, lines 20-32). It would have been obvious to the skilled artisan at the time the invention was made to use a roll press that simultaneously presses the panes for the roll press of Glover because such is known in the art, as taught by LaFond, and this expedites production.

Regarding claim 22, LaFond teaches such (column 5, lines 29-32).

10. Claims 14-15, 20, and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guhl et al. (US 6055783; provided in IDS) in view of Glover.

With respect to claim 14, Guhl teaches a method for making an integrated sash insulating glazing unit (column 1, lines 7-8). The reference teaches providing a sash frame 200 having a first mounting surface for a first pane 222 and a second mounting surface for a second pane 230 substantially parallel to the first pane wherein the mounting surfaces are spaced apart to provide an insulating space between the panes (Figure 12; column 12, line 59 – column 13, line 2). The reference teaches mounting the panes to their respective mounting surfaces via adhesive sealant (column 13, line 66 – column 14, line 16).

The reference is silent as to pressing the surfaces of the panes adjacent their respective mounting surfaces into the respective adhesive sealant using at least one roller.

It is known in the art to make a laminated insulating glazing unit by pressing the surfaces of first and second panes adjacent their respective mounting surfaces located on a sash frame using at least one roller, as taught by Glover (column 6, lines 50-56). Therefore, it would have been obvious to the skilled artisan at the time the invention was made to press the surfaces of the panes of Guhl adjacent their respective mounting surfaces located on the sash frame using at least one roller because such is known in the art, as taught by Glover, where pressure application ensures good bonding.

Regarding claim 15, Guhl teaches providing stops 204, 208 on the mounting surfaces to limit wet-out of the sealant (column 14, lines 15-16; column 6, lines 18-24). As for pressing the surfaces of the panes with the at least one roller to a point at which the glazing panes contact the

stops, such would have been obvious to the skilled artisan because this would result in formation of the most effective bond.

Regarding claim 20, Glover teaches such (column 6, lines 50-56).

Regarding claim 23, Guhl teaches an evacuation opening 188 provided in communication with the insulating space wherein the skilled artisan would have appreciated this opening allowing for the escape of air at any point in time during the manufacturing process since the opening is not plugged until assembly is complete (Figure 12; column 13, lines 63-65; column 6, line 54 – column 7, line 10).

Regarding claim 24, Guhl in view of Glover teaches plugging the evacuation opening after the panes have been mounted and pressed (column 13, lines 63-65).

Regarding claim 25, Guhl in view of Glover teaches filling the insulating space with an insulating gas via the evacuation opening after the panes have been mounted and pressed and plugging the opening after this filling step (column 6, line 54 – column 7, line 10).

11. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guhl et al. and Glover as applied to claim 14 above, and further in view of Emmanuel (US 5836119).

Regarding claim 16, Guhl teaches attaching glazing bead 175 to pane 230 (Figure 12; column 14, lines 17-30). Guhl in view of Glover is silent as to using the at least one roller to attach the glazing bead to the pane.

It is known in the art to attach a glazing bead 86 to one of the panes comprising an insulating glazing unit 46 already mounted to a sash frame 30 by pressing the glazing bead onto the pane using a roller press, as taught by Emmanuel (Figure 3; column 5, lines 52-60).

Therefore, it would have been obvious to the skilled artisan at the time the invention was made to

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also use the at least one roller of Guhl in view of Glover to attach the glazing bead of Guhl to the pane because such is known in the art, as taught by Emmanuel, wherein this eliminates the need to attach the glazing bead by hand.

Regarding claims 17 and 19, it would have been obvious to the skilled artisan to attach the bead simultaneously with the mounting of the pane because this eliminates the need for separate pressing steps thereby expediting production.

Regarding claim 18, the skilled artisan would have appreciated that pressure from the at least one roller would be applied to the pane via the glazing bead.

12. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guhl et al. and Glover as applied to claim 20 above, and further in view of LaFond.

Regarding claim 21, Guhl in view of Glover is silent as to the multiple rollers simultaneously pressing the panes. It is known in the art to make a laminated insulating glazing unit by adhesively bonding first and second panes to their respective mounting surfaces using a roll press comprising a plurality of rollers that simultaneously press the panes toward their mounting surfaces, as taught by LaFond (Figure 2; column 1, lines 6-9; column 5, lines 20-32). It would have been obvious to the skilled artisan at the time the invention was made to use a roll press that simultaneously presses the panes for the roll press of Guhl in view of Glover because such is known in the art, as taught by LaFond, and this expedites production.

Regarding claim 22, LaFond teaches such (column 5, lines 29-32).

13. Claims 14 and 20 are rejected under 35 U.S.C. 103(a) as being obvious over Hornung (US 6679013) in view of Glover.

The applied reference has a common inventor and assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

With respect to claim 14, Hornung teaches a method for making an integrated sash insulating glazing unit (column 1, lines 6-10). The reference teaches providing a sash frame 20 having a first mounting surface for a first pane 30a and a second mounting surface for a second pane 30b substantially parallel to the first pane wherein the mounting surfaces are spaced apart to provide an insulating space between the panes (Figure 6; column 6, lines 15-35). The reference teaches mounting the panes to their respective mounting surfaces via adhesive sealant (column 6, lines 28-35).

The reference is silent as to pressing the surfaces of the panes adjacent their respective mounting surfaces into the respective adhesive sealant using at least one roller.

It is known in the art to make a laminated insulating glazing unit by pressing the surfaces of first and second panes adjacent their respective mounting surfaces located on a sash frame using at least one roller, as taught by Glover (column 6, lines 50-56). Therefore, it would have been obvious to the skilled artisan at the time the invention was made to press the surfaces of the panes of Hornung adjacent their respective mounting surfaces located on the sash frame using at least one roller because such is known in the art, as taught by Glover, where pressure application ensures good bonding.

Regarding claim 20, Glover teaches such (column 6, lines 50-56).

14. Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hornung and Glover as applied to claim 14 above, and further in view of Emmanuel.

Regarding claim 16, Hornung teaches attaching glazing beads 40a, 40b to the panes using a variety of locking elements, such as adhesive (Figure 6; column 7, lines 33-38 and 58-62), wherein the glazing beads are brought into contact with the panes by automated machinery (column 7, line 63 – column 8, line 8). Hornung in view of Glover is silent as to using the at least one roller to attach the glazing bead to the pane.

It is known in the art to attach a glazing bead 86 to one of the panes comprising an insulating glazing unit 46 already mounted to a sash frame 30 by pressing the glazing bead onto the pane using a roller press, as taught by Emmanuel (Figure 3; column 5, lines 52-60). Therefore, it would have been obvious to the skilled artisan at the time the invention was made to also use the at least one roller of Hornung in view of Glover as the automated machinery used to

attach the glazing beads of Hornung to the panes because such is known in the art, as taught by Emmanuel, wherein a roller would allow for easy pivoting of the glazing bead and pressing over the entire surface thereof.

Regarding claim 18, the skilled artisan would have appreciated that pressure from the at least one roller would be applied to the pane via the glazing bead.

15. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hornung and Glover as applied to claim 20 above, and further in view of LaFond.

Regarding claim 21, Hornung in view of Glover is silent as to the multiple rollers simultaneously pressing the panes. It is known in the art to make a laminated insulating glazing unit by adhesively bonding first and second panes to their respective mounting surfaces using a roll press comprising a plurality of rollers that simultaneously press the panes toward their mounting surfaces, as taught by LaFond (Figure 2; column 1, lines 6-9; column 5, lines 20-32). It would have been obvious to the skilled artisan at the time the invention was made to use a roll press that simultaneously presses the panes for the roll press of Hornung in view of Glover because such is known in the art, as taught by LaFond, and this expedites production.

Regarding claim 22, LaFond teaches such (column 5, lines 29-32).

Double Patenting

16. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

17. Claims 14-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 64-70 of copending Application No. 10/285,343 in view of Glover.

With respect to claim 14, claim 64 of the copending application teaches all the limitations except pressing the panes adjacent their respective mounting surfaces using at least one roller; it being noted that the skilled artisan would have readily appreciated it being known in the sash frame art that the mounting surfaces for multiple panes are always spaced from each other to allow for the formation of an insulating space therebetween.

It is known in the art to make a laminated insulating glazing unit by pressing the surfaces of first and second panes adjacent their respective mounting surfaces located on a sash frame using at least one roller, as taught by Glover (column 6, lines 50-56). Therefore, it would have been obvious to the skilled artisan at the time the invention was made to press the surfaces of the panes of the copending application adjacent their respective mounting surfaces located on the sash frame using at least one roller because such is known in the art, as taught by Glover, where pressure application ensures good bonding.

This is a provisional obviousness-type double patenting rejection.

18. Claims 14-25 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 18-23 of U.S. Patent No. 6,679,013 in view of Glover.

With respect to claim 14, claim 18 of US '013 teaches all the limitations except mounting the panes using adhesive and pressing the panes adjacent their mounting surfaces using at least one roller.

It would have been obvious to mount the panes using adhesive because such is known in the art, as taught by Glover, wherein this prevents the panes from moving around.

It is known in the art to make a laminated insulating glazing unit by pressing the surfaces of first and second panes adjacent their respective mounting surfaces located on a sash frame using at least one roller, as taught by Glover (column 6, lines 50-56). Therefore, it would have been obvious to the skilled artisan at the time the invention was made to press the surfaces of the panes of '013 adjacent their respective mounting surfaces located on the sash frame using at least one roller because such is known in the art, as taught by Glover, where pressure application ensures good bonding.

With respect to claim 14, claim 22 of US '013 teaches all the limitations except pressing the panes adjacent their respective mounting surfaces using at least one roller.

It is known in the art to make a laminated insulating glazing unit by pressing the surfaces of first and second panes adjacent their respective mounting surfaces located on a sash frame using at least one roller, as taught by Glover (column 6, lines 50-56). Therefore, it would have been obvious to the skilled artisan at the time the invention was made to press the surfaces of the panes of '013 adjacent their respective mounting surfaces located on the sash frame using at least one roller because such is known in the art, as taught by Glover, where pressure application ensures good bonding.

19. Claims 14-25 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,536,182 in view of Glover.

With respect to claim 14, claims 1 and 8 of US '182 teaches all the limitations except pressing the panes adjacent their respective mounting surfaces using at least one roller.

It is known in the art to make a laminated insulating glazing unit by pressing the surfaces of first and second panes adjacent their respective mounting surfaces located on a sash frame using at least one roller, as taught by Glover (column 6, lines 50-56). Therefore, it would have been obvious to the skilled artisan at the time the invention was made to press the surfaces of the panes of '182 adjacent their respective mounting surfaces located on the sash frame using at least one roller because such is known in the art, as taught by Glover, where pressure application ensures good bonding.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **571-272-1223**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine R. Copenheaver can be reached on 571-272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jessica L. Rossi
Patent Examiner
Art Unit 1733